BRUHAT BANGALORE MAHANAGARA PALIKE

Detailed Estimate for Providing and laying HDPE Water line in Mohan Kumar Nagara Block-2 in J P Park, Ward No 17.

Cost of Work :49.97 Lakhs

OFFICE OF THE EXECUTIVE ENGINEER
Rajarajeshwari Nagara Division
Rajarajeshwari Nagara Zone
BBMP

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BRUHATH BANGALORE MAHANAGARA PALIKE

RAJARAJESHWARI NAGARA ZONE

Detailed Estimate for Providing and laying HDPE Water line in Mohan Kumar Nagara Block-2 in J P Park, Ward No 17.

Est. Cost in Lakhs : 49.97

Sl. No.	Description	Unit	Dimensions				Qty.	Rate	Amount
			No.	L.	B.	D			
1	KSRB : **Earth work excavation** for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in **Hard soil** not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. (Page No.5, Item No. 2.4 of KPWD SR 2013-14)								
	Asphalt Road	**Cum**	1	1050.00	0.45	1.00	472.50		
	Concrete Road		1	900.00	0.45	1.00	405.00		
	Asphalt Cross Cutting		230	7.50	0.45	1.00	776.25		
	Concrete Cross Cutting		196	7.00	0.45	1.00	617.40		
						Total	**2271.15**	**227.88**	**517549.66**
	Basic Rate **211.00**								
	Area weightage @ 8% 16.88								
	Total **227.88**								
2	KSRB13-9.1 : Providing and fixing to wall, ceiling and floor **High Density Polyethylene Pipes** 6.00 kgf/sq.cm working pressure **90mm outside diameter**, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing excluding cost of fittings, complete as per specifications. Specification No.KBS 13.2.1 5.2 1 13.9 (I-13.73.3 P-102 of KPWD SR 2013-14)								
	For Main Line	**Rmtr**	1	1950.00			1950.00		
						Total	**1950.00**	**501.12**	**977184.00**
	Basic Rate **464.00**								
	Area weightage @ 8% 37.12								
	Total **501.12**								
3	KSRB13-9.1 : Providing and fixing to wall, ceiling and floor high density polyethylene pipes 10.00 kgf/sq.cm working pressure 25mm outside diameter, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing excluding cost of fittings, complete as per specifications. Specification No.KBS 13.2.1 5.2 1 13.9 (I-13.76 P-103 of KPWD SR 2013-14)								
	Left side	**Rmtr**	213.0	6.00			1278.00		
	Right side		213.0	9.00			1917.00		
						Total	**3195.00**	**106.92**	**341609.00**
	Basic Rate **99.00**								
	Area weightage @ 8% 7.92								
	Total **106.92**								

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	Description	Unit	Dimensions				Qty.	Rate	Amount
			No.	L.	B.	D			
4	KSRB13-3.2 : Providing and fixing in trenches galvanised / mild steel tubes (medium grade) 20mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No.KBS 13.2.14 / 13.6 (I-13.11, P- 95 of KPWD SR 2013-14)								
	For Delivery at End	**Rmtr**	426.0	1.00			426.00		
						Total	**426.00**	**197.64**	**84195.00**
	Basic Rate	**183.00**							
	Area weightage @ 8%	14.64							
	Total	**197.64**							
5	Providing and fixing 25mm dia nipple, complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	1	426.00			426.00		
						Total	**426.00**	**32.10**	**13675.00**
	Basic Rate	**32.10**							
	Total	**32.10**							
6	Providing and fixing reducer elbow 25mm to 20mm complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	2	426.00			852.00		
						Total	**852.00**	**41.00**	**34932.00**
	Basic Rate	**41.00**							
	Total	**41.00**							
7	Providing and fixing 20mm dia nipple, complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	1	426.00			426.00		
						Total	**426.00**	**21.00**	**8946.00**
	Basic Rate	**21.00**							
	Total	**21.00**							
8	Providing and fixing HDPE 90 x 32mm saddle with brass nuts and bolts including cost of all materials, labour charges, HOM of equipments and testing excluding cost of fittings, complete as per specifications.								
		Nos	1	426.00			426.00		
						Total	**426.00**	**350.00**	**149100.00**
	Quatation Rate	**350**							
9	Providing and fixing 20mm dia union, complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	1	426.00			426.00		
						Total	**426.00**	**54.45**	**23196.00**
	Basic Rate	**54.45**							
	Total	**54.45**							

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No.	Description	Unit	Dimensions				Qty.	Rate	Amount
			No.	L.	B.	D			
10	Providing and fixing 20mm dia hose coller, complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	2	426.00			852.00		
						Total	**852.00**	**26.30**	**22408.00**
	Basic Rate	**26.30**							
	Total	**26.30**							
11	Providing and fixing 20mm elbow, complete as per specifications.(Page XXXVIII of KPWD SR 2013-14)								
		Nos	2	426.00			852.00		
						Total	**852.00**	**17.80**	**15166.00**
	Basic Rate	**17.80**							
	Total	**17.80**							
12	Providing and fixing 20mm to 15mm reducer elbow, complete as per specifications. (Page XXXVIII of KPWD SR 2013-14)								
		Nos	2	426.00			852.00		
						Total	**852.00**	**22.10**	**18829.00**
	Basic Rate	**22.10**							
	Total	**22.10**							
13	Providing and fixing 20mm NP bib cock complete as per specifications. (Page XXII Sl No 617 of KPWD SR 2013-14)								
		Nos	1	426.00			426.00		
						Total	**426.00**	**189.00**	**80514.00**
	Basic Rate	**189.00**							
	Total	**189.00**							
14	KSRB 2-4 : **Refilling available earth** around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. (I-2.11, P-6 of KPWD SR 2013-14)								
	Asphalt Road	**Cum**	1	1050.00	0.45	0.70	735.00		
	Concrete Road		1	900.00	0.45	0.75	675.00		
	Asphalt Cross Cutting		230	7.50	0.45	0.70	1207.50		
	Concrete Cross Cutting		196	7.00	0.45	0.75	1029.00		
						Total	**3646.50**	**60.48**	**220540.00**
	Basic Rate	**56.00**							
	Area weightage @ 8%	4.48							
	Total	**60.48**							

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	Description	Unit	Dimensions				Qty.	Rate	Amount
			No.	L.	B.	D			
15	KSRRB M400- **Wet Mix Macadam** KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (I-20.18 P-170 of KPWD SR 2013-14)								
	Asphalt Road	**Cum**	1	1050.00	0.45	0.25	118.13		
	Asphalt Cross Cutting		230	7.50	0.45	0.25	194.06		
						Total	**312.19**	**1121.04**	**349975.00**
	Basic Rate	**1038.00**							
	Area weightage @ 8%	83.04							
	Total	**1121.04**							
16	KSRRB 500- Primer Coat/Tack Coat KSRRB M500-6. Providing and applying **Primer Coat** with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 (I-21.6 P-175 of KPWD SR 2013-14)								
	Asphalt Road	**Sqm**	1	1050.00	0.45		472.50		
	Asphalt Cross Cutting		230	7.50	0.45		776.25		
						Total	**1248.75**	**44.28**	**55295.00**
	Basic Rate	**41.00**							
	Area weightage @ 8%	3.28							
	Total	**44.28**							
17	KSRRB 500-Bituminous macadam KSRRB 500-11. Providing and laying **Bituminous Macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 /75mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH /Chapter 5 60/70 grade bitumen (I-21.11.2, P-176 of KPWD SR 2013-14)								
	Asphalt Road	**Cum**	1	1050	0.45	0.05	23.63		
	Asphalt Cross Cutting		230	7.50	0.45	0.05	38.81		
						Total	**62.44**	**6733.80**	**420442.00**
	Basic Rate	**6235.00**							
	Area weightage @ 8%	498.80							
	Total	**6733.80**							

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	Description	Unit	Dimensions				Qty.	Rate	Amount
			No.	L.	B.	D			
18	KSRRB 500-7. Providing and applying **Tack Coat** on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 (I-21.7, P-176 of KPWD SR 2013-14)								
	Asphalt Road	**Sqm**	1	1050.00	0.45		472.50		
	Asphalt Cross Cutting		230	7.50	0.45		776.25		
						Total	**1248.75**	**17.93**	**22388.00**
	Basic Rate	**16.60**							
	Area weightage @ 8%	1.33							
	Total	**17.93**							
19	KSRRB M500-18. Providing and laying **Semi Dense Bituminous Concrete** with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.0 to 4.5% by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.8 complete in all respects as per specifications. 25-30mm compacted thickness with 5% bitumen 60/70 grade (Grading II) (I-21.20.2, P-178 of KPWD SR 2013-14)								
	Asphalt Road	**Cum**	1	1050.00	0.45	0.03	11.81		
	Asphalt Cross Cutting		230	7.50	0.45	0.03	19.41		
						Total	**31.22**	**9767.52**	**304930.00**
	Basic Rate	**9044.00**							
	Area weightage @ 8%	723.52							
	Total	**9767.52**							
20	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix **M10** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (I-4.2 P-12 of KPWD SR 2013-14)								
	Concrete Road	**Cum**	1	900.0	0.45	0.10	40.50		
	Concrete Cross Cutting		196	7.0	0.45	0.10	61.74		
						Total	**102.24**	**4497.12**	**459786.00**
	Basic Rate	**4164.00**							
	Area weightage @ 8%	333.12							
	Total	**4497.12**							

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	Description	Unit	Dimensions No.	L.	B.	D	Qty.	Rate	Amount
21	KSRB 4-1.5 : Providing and laying in position plain cement concrete of mix **M20** with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.64cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (I-4.5 P-12 of KPWD SR 2013-14)								
	Concrete Road	**Cum**	1	900.0	0.45	0.15	60.75		
	Concrete Cross Cutting		196	7.00	0.45	0.15	92.61		
						Total	**153.36**	**5323.32**	**816384.00**
	Basic Rate	**4929.00**							
	Area weightage @ 8%	394.32							
	Total	**5323.32**							
22	Conveying the excavated earth silt debris and over burden earth etc., to a lead of upto 9 to 10 Kms distance by using private vehicle this includes the cost of loading and unloading charges etc., complete								
	Asphalt Road	**Cum**	1	1050.00	0.45	0.30	141.75		
	Concrete Road		1	900.00	0.45	0.25	101.25		
	Asphalt Cross Cutting		230	7.50	0.45	0.30	232.875		
	Concrete Cross Cutting		196	7.00	0.45	0.25	154.35		
						Total	**630.23**	**94.82**	**59760.00**
	Basic Rate	**87.80**							
	Area weightage @ 8%	7.02							
	Total	**94.82**							
23	Miscellaneous and other unforseen charges							L.S.	**196.34**
							TOTAL	**RS.**	**4997000.00**

(Rupees Forty Nine Lakhs Ninty Seven Thousand only)

CERTIFICATE

1) The work spot has been inspected and the work is found to be necessary.
2) This estimate is prepared as per C.S.R. of 2013-14 and as per rate analysis.
3) The provisions were made in this estimate are necessary and adequate.
4) This works come under B.B.M.P. limits.

Asst.Engineer
Ward no.17

Assistant Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bengaluru Mahanagara Palike

Executive Engineer
R.R.Nagara Division
Bruhat Bengaluru Mahanagara Palike

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